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Original Articles

A FURTHER CONTRIBUTION IN REGARD TO TEMPORARY GLYCOSURIA IN CONNECTION WITH CEREBRAL HEMORRHAGE.

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ON MARCH 2, 1899, I reported a case of cerebral hemorrhage with temporary glycosuria before the Medical Society of City Hospital Alumni, and this was subsequently published in the *Philadelphia Medical Journal*, April 22, 1899. The case in question was in my charge in the medical ward of the City Hospital during the latter part of January, 1899. At the very beginning of my report of that case, I took occasion to mention the comparative infrequency of an observation of this kind, and I dwelt particularly on the coincidence of physiologic theory and clinical and post-mortem findings in the case in question. During the four months following I saw three more cases of the same kind, each of which exhibited manifestations interesting enough to deserve special mention. The clinical histories and autopsy reports are subjoined:

Case 1. H. E , newspaper man, aged 40 years, native of Switzerland, was admitted to the institution March 28, 1899, at 4:15 P.M. Nothing of interest bearing on his condition could be learned from his family. He left home in the morning in apparently good health and was found later by the police in an unconscious condition upon the street. Patient arrived in a comatose state; pulse 96, respiration 20, rectal temperature 99.4° F. He was a man of good physique. Respiration was somewhat sterterous. Pupils were at first equal, but later the left dilated and the right contracted. There was motor paralysis of the right side of the face with anesthesia; paralysis of the left arm and partial paralysis of the left leg. Patient could be roused to a slight extent by the application of mechanical stimuli. There was no deviation of the tongue when protruded. Later on, patient made attempts to speak, but articulation was so poor that nothing intelligible could be made out. Profuse sweating could be noted on the right side of the face; slight perspiration on the left side. Physical examination of the heart and lungs was negative. Pulse was regular, rapid and weak. Reflexes, superficial and deep, were normal on the right side and diminished on the left side.

Urinary Analysis.—About 300 c.c. of cloudy urine withdrawn by catheterization; acid; specific gravity, 1,028; albumins; sugar about 2% (Nylander's, Fehling's, fermentation, phenyl-hydrazin); no acetone; epithelial and granular casts by centrifugalization. Blood test, according to Bremer's method for determination of "diabetic" blood, was positive.

Purgation was followed by no change in patient's condition. Sugar had disappeared from the urine by the following day. Blood test was no longer positive. Patient died at 3:20 P.M., March 30, 1899.

Autopsy Report.—Body, that of a white man, with well-developed osseous and muscular systems; adiposa well retained; muscles of a dark-red color. Liver extends three fingers' breadth below the free costal border in mamillary line. Omental fat well retained. Lungs approximate in median line. Heart is enlarged and right auricle and ventricle contain dark liquid blood. Right auriculo-ventricular valve admits three fingers. Left ventricle is dilated and has hypertrophic wall. Lungs show hypostasis. There are evidences of old perisplenitis. Kidneys show a condition of nephritis parenchymatosa chronica. Liver shows signs of fatty infiltration.

Brain.—Great injection of the vessels of the pia-arachnoid; a condition of slight hydrocephalus internus; a large blood clot completely filled the fourth ventricle, and by its pressure upwards had produced a marked degree of encephalomalacia in the pons.

Case 2. T. H., switchman, aged 65 years, native of Ireland, was admitted April 10, 1899, at 5:55 P.M. No family history could be obtained at that time, but I learned subsequently that he had had nothing interesting in his family history except the item that he was, like most of his class, a heavy drinker. He was a fairly well-developed man, with no appreciable emaciation. Respiration was at first quickened, 40, but later it became slow, 18. Right cheek is sunken, and right eye has been enucleated. Left pupil is very small. Head is turned to the left side; small incised wound over the external angular protuberance on the right side. Face is somewhat cyanotic; marked shortness of the neck. Tongue is of a dark color and dry; all the teeth are gone. There was no characteristic

odor about the breath. Apex beat of the heart was in its normal position; varicose condition of the veins of the legs; radial artery showed sclerotic condition; there was a decided accentuation of the second aortic sound. Complete motor paralysis on the right side of the body; absence of reflexes on that side, and exaggeration of reflexes, superficial and deep, on the left side.

Urinary Analysis.—Two hundred and fifty c.c. of a pale-colored urine withdrawn by catheterization; specific gravity 1,025; acid; small quantity of albumins; 0.2% sugar; epithelial and hyaline casts after centrifugalization. Blood test was also positive.

Condition of patient remained unchanged for seven days, when dissolution set in. Sugar was present in the urine for three days in about the same quantity and then disappeared. It may be well to state that the blood test was positive up to the fifth day of patient's stay with us. He died at 3:50 A.M., April 17, 1899.

Autopsy Report.—Body that of a white man, with good bony frame and well retained muscular and adipose tissues; right eye enucleated; teeth gone; muscles dry; lungs approximate in median line; heart enlarged; aorta dilated; aortic valves intact; kidneys show clouded cortex and evidences of acute parenchymatous nephritis.

Brain.—Edema of the left cerebral mass; pronounced encephalomalacia in the left motor region about the fissure of Rolando; good sized thrombus filled the left cerebral artery; nothing abnormal about ventricles.

Case 3. S. D., painter, aged 62 years, native of New York, admitted to hospital May 22, 1899, at 2:56 P.M. Wife of patient came with him and stated that he had been a chronic alcoholic for years, and that he had been under a physician's care from time to time, for about ten years, for "Bright's disease." He fell down in a coma on the day that he came here and did not come out of it. Inspection showed him to be a man of medium height and weight; breathing was sterterous; pulse 76, full and regular; temperature 101.2° F. There was motor paralysis of the left arm and leg, but sensation was retained, as patient responded slightly to the sticking of pins. Reflexes, superficial and deep, were exaggerated on both sides. Reaction of left pupil to light is more sluggish than of right; left pupil is also smaller than right. Heart, lungs and abdominal viscera revealed nothing bearing on comatose state.

Urinary Analysis.—One hundred and thirty-five c.c. of clear, yellowish urine withdrawn, showing a specific gravity of 1,034; acid reaction; albumins; epithelial, granular and hyaline casts; sugar about 1%. Patient died at 1:15 A.M., May 23, 1899.

Autopsy Report.—General condition about same as two previous cases. The most important pathologic conditions found were nephritis parenchymatosa chronica, hypertrophy of the left ventricle, cirrhosis of the liver. By far the most interesting phenomenon noticed was a large blood clot completely filling the ventricular system (source of hemorrhage was ruptured miliary aneurism on right lenticulo-striate artery) This condition was an exact counterpart of the one noted in the case previously reported.

A report of the first of my cases was published in the *Philadelphia Medical Journal* of April 22, 1899. I subjoin an abstract of the same:

I. L., canvasser, aged 46 years, native of New York City, admitted to hospital January 29, 1899, at 7:10 A.M., in comatose state. Family history showed him to have been a chronic alcoholic for years. Inspection showed him to be a man of average build, no emaciation, no signs of the "apoplectic habit." There was complete motor paralysis of all the voluntary muscles; absence of deep reflexes; pulse slow, full and strong. Patient could not be roused by the usual means.

Urinary Analysis revealed presence of albumins and sugar (3%). Bremer's blood test was positive. Patient gradually sank and died at 6:30 P.M. of same day, sugar having disappeared altogether from the urine just before death.

Autopsy Report.—Nothing striking found except a sclerotic condition of the basal arteries of the brain and a large blood clot filling the ventricular system of right side and liquid blood filling that of left side; blood clot in fourth ventricle and a ruptured miliary aneurism on right lenticulo-striate artery.

From a review of these cases it will be seen that a temporary glycosuria existed coincidently with a cerebral hemorrhage, severe enough in the above-mentioned cases to produce death. In view of the fact that the literature upon this subject has not increased since my recent communication was published, I take the liberty of quoting from my report. It will be noted that frequent observations on temporary glycosuria in connection with cerebral hemorrhage have been made by various authors. Most of the writers on the subject contend that any increase in intra-cranial pressure, such as a hemorrhage, edema or trauma, will be followed by a temporary glycosuria.[1] The first who described glycosuria following cerebral hemorrhage was Leudet.[2] Frerichs described six cases and Olivier five, with autopsies.[3] Many reports are found in literature. In the majority of cases the cerebral hemorrhage is very severe, but in some cases (very mild cases) a large amount of sugar may be found.[4] According to Olivier, the sugar does not appear in the urine until two hours after the first attack. The amount of sugar varies much, sometimes disappearing for a time completely, and often before death it disappears altogether. In case the apoplexy is not fatal, sugar can be found in the urine for six days.

The amount of sugar varies from 1% to 2.9% (Schutz), 4% (Frerichs). A light grade of polyuria may also be present and very often albuminuria.

The seat of the hemorrhage in most of these cases was in the hemispheres, and was intermeningeal, and not so situated that there could be any direct effect upon the floor of the fourth ventricle. Among these cases, however, were found a number where the hemorrhage was in the pons; in only one case did the glycosuria become permanent. Naumyss[5] and others are inclined to believe that the increase in intracranial pressure is the causative factor in the production of glycosuria in cases of cerebral hemorrhage. On the other hand, there are observers who have claimed that direct intra-ventricular pressure is responsible for the transitory glycosuria. In the case previously reported by me, I took that stand for the reason that the post-mortem findings in that case suggested that explanation, a blood clot being found within the fourth ventricle, although the "increase-in-pressure" theory could also be used to explain the condition, in view of the fact that there was a tremendous amount of blood extravasated from the ruptured lenticulo-striate artery into the entire ventricular system. Morokow[6] states that the increase in pressure following these attacks of cerebral hemorrhage causes an increase in the amount of urine excreted, and that sugar is sometimes found in the urine when the hemorrhage is in the fourth ventricle. He also states that a passing albuminuria is present in these cases. Oppenheim[7] says that sugar may appear in the urine in cases of cerebral hemorrhage, but not very often, and then not until from twelve to twenty hours after the onset of the attack. Jaksch[8] states that although transitory glycosuria has been reported after apoplexy, he has not been able to find a case among fifty cases of fresh apoplexy within two years. According to Mills[9] glycosuria is most likely to result when the lesion is in the fourth ventricle. Loeb[10] believes that in most fatal cases of cerebral hemorrhage sugar exists in the urine, but that its secretion rarely continues longer than from twelve to twenty-four hours; also, that albuminuria is often present and always lasts longer than the glycosuria. Robin and Kuss[11] make similar statements. R. Lepine[12] records a case of transitory glycosuria in a case of hemorrhage into the internal capsule; the hemorrhage was very slight, however, and not so situated that there could have been any effect upon the fourth ventricle directly, so that the increase-in-pressure theory would have to be held accountable in explanation thereof.

As already stated, the explanation for the appearance in the urine of sugar in the case previously reported, was that of direct pressure upon the floor of the fourth ventricle in the area known as "Bernard's diabetic center." I would also explain cases 1 and 3 of this report in the same way. This seems very reasonable to me when consideration is given to the physiologic aspect of the question. Claude Bernard first produced an artificial glycosuria by puncturing the floor of the fourth ventricle in the brain of a rabbit.[13] This is now one of the classic laboratory experiments. The same reaction can be obtained by filling the fourth ventricle with paraffin introduced through the needle of a hypodermic syringe which has been thrust through the cerebellum from above. In other words, either direct injury to, or pressure upon the center in question, will produce glycosuria experimentally. Again, when we consider what post-mortem findings have been offered as etiologic factors in diabetes mellitus, such as tubercles, cysticerci, etc., in the region of the fourth ventricular floor, and also sclerosis of the medulla itself, it becomes evident that such lesions of the central nervous system prove that disturbances in that region have a bearing on the elimination of sugar in the urine.

Now, the manner in which disturbances in the floor of the fourth ventricle cause an elimination of sugar through the urine is explicable on the ground that lesions in that place, *i. e.*, in the diabetic or vaso-motor center, produce a vaso-motor paralysis. The question then before us is, what relationship is there between a vaso-motor paralysis and the glycogenic function of the liver, and again, the elimination of free sugar in the urine? It is to be understood that a positive explanation of this question has not yet been given us by physiologists, but the opinion handed down by them in this regard is that impulses travel down the cord from the vaso-motor center to the fourth dorsal vertebra or thereabouts, and thence radiate to the thoracic ganglia and to the liver. How these radiated impulses affect the glycogenic function of the liver is not exactly known, but it is supposed that that function of the liver is so interfered with by such a vaso-motor paralysis that an undue amount of sugar, which is usually stored up in the liver in the form of glycogen, is set free in the blood stream, and this surplus is expressed from the circulatory system through the agency of the renal apparatus.

The natural conclusion then, is, that in cases of temporary glycosuria in connection with cerebral hemorrhage, either increase in intracranial pressure or direct mechanical pressure upon the floor of the fourth ventricle would explain the condition. In the case previously reported and in cases 1 and 3, I think I am warranted in assuming that direct pressure upon the floor of the fourth ventricle was responsible for the appearance of sugar in the urine. In Case 2 there was no such direct effect, but the diabetic center was interfered with and glycosuria resulted from an increase in intracranial pressure. It seems not amiss to call attention to the finding of sugar in the urine of comatose patients as a diagnostic measure;

eliminating the question of diabetic coma, if we find sugar in the urine of a patient who is in a coma simulating uremia and apoplexy, we may decide in favor of apoplexy.

Robin and Kuss[14] have offered that suggestion. It is also a fact worthy of attention and thought, that these four cases of cerebral hemorrhage with temporary glycosuria were fatal cases, so that it is fair to assume that some idea of prognosis of an apoplexy may be obtained when it is complicated with glycosuria. I cannot refrain from alluding to the lesson taught us by such cases, of how medicine is justly entitled to its place among the sciences, for where could we find a more logical theory or a more practical demonstration of such a theory than is seen in these instances? In truth, it is a perfect coincidence of theory and practice and another triumph for scientific medicine.

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[5]Naumyss: Loc. cit.

[7]Morokow: Gehier, Pathologie.

[7]Oppenheim: Lehrbuch der Pathologie.

[8]Jaksch, R. v.: Prag. med. Wochenschrift, Nos. 31, 32, 1892.

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[10]Loeb: Prag. med. Wochenschrift, No. 50, 1864.

[11]Robin et Kuss: Apoplexie cerebrale et glycosurie, Med. Moderne, Rev. Neurolog, No. 61.

[12]Lepine: Revue de Med., October 10, 1897.

[13]Bernard: Leçons de Physiologie experimentale appliquee a la Medicine, Tome I., p. 289.

[14]Robin et Kuss: Loc. cit.

Notes and Items

THE name of the *Tri-State Medical Journal* has been changed to the *Inter-State Medical Journal*, a wise change, in view of the broadening sphere which the journal now occupies.

AN epileptic colony is to be started in Texas. Taylor County has donated a large tract of land near Abiline, and the last legislature appropriated one hundred thousand dollars to erect suitable buildings. In addition, the legislature appropriated a sum of money to pay an expert to visit all established colonies for epileptics, and prepare plans for the work.

MUNICH has tricycle ambulances. They are constructed upon the same plan as similar vehicles made for the delivery of goods. A stretcher large enough for the comfortable support of one person is placed over the rear wheels and the attendant sits on the front and propels the vehicle. The service is maintained by voluntary subscriptions, and the ambulances are at the service of the public for the removal of patients to the hospitals, trains or private residences. A small fee is charged in cases where individuals are able to pay.

A RECENT communication declares that "a druggist had discovered formaldehyde to be extremely efficacious in burns by personal experience." A valuable remedy has been discovered, and one that far exceeds the most potent of the homeopathic remedies. The burns of experience belong to the most frequent ills to which humanity is heir, and a potent remedy for their relief, which will immediately restore moral, physical and financial blisters, is one that has long been needed.

AN epidemic of typhoid fever has been prevailing in Philadelphia for the past four months. It is reported that 6,000 cases have occurred, with a mortality of nearly 1,000. The epidemic is due to a pollution of the water supply; and while the temperature has varied from zero to upwards of ninety, and the source of the water supply has varied from clear to muddy, there has been no appreciable change in the number of typhoid cases. The city council has at last realized the importance of the matter and has appropriated the enormous sum (sic) of $15,000 for the purpose of investigating the water supply.

THE practical training of sanitarians for the public health service has been scientifically undertaken by the Chicago Health Department. For some time past under-graduates and those who have recently passed their examinations, and who purpose making public health work a specialty, are admitted to the laboratories and given an opportunity to supplement their school training by practical field work and sanitary science. The increased interest in public health work is creating a demand for those with special training in that direction, and is opening up a field of usefulness for the recent graduate in medicine.

A TREADMILL for consumptive patients has been constructed by the trustees of the Cincinnati Hospital. It is believed that exercise is good for consumptives, and to meet this, a board walk a mile long has been built within the hospital grounds to be used as a promenade by consumptive patients. It is possible that this is better than being confined within the wards; but we can conceive of nothing more monotonous than the wearisome tramp of these consumptives up and down their broad walk. Perhaps if the trustees had donated the money which the walk cost to a few of their more curable patients, and sent them to a dry and elevated atmosphere, and allowed the others to die quietly in the ward, they would have accomplished something in the treatment of tuberculosis.

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PUBLIC AND SCHOOL HYGIENE.

The rôle of the physician instructing the public is to be accomplished in the state of Missouri. If the resolutions which were introduced by Dr. J. M. Allen of Liberty and adopted at the last meeting of the Missouri State Medical Association have any influence upon the members of the Association, it is certain that only good can come from the free discussion of public and school hygiene before the people. There is so much to be done in school hygiene particularly. Almost every one recognizes the value and necessity of public hygiene, but school hygiene is somewhat of an exotic which blossoms but rarely, alas! too rarely. The resolutions are as follows:

Resolved, 1st, that the officers of this Association are requested to have lectures on public and school hygiene delivered before the state and county institutes of the State.

2nd, that the officers of the County and District Medical Societies be requested to hold at least one public meeting at night for the discussion of public and school hygiene.

TREATMENT OF APPENDICITIS WITH SALINES.

That every case of appendicitis needs an operation as soon as the diagnosis is made will never be universally accepted. The statistics at hand do not warrant such a conclusion. The mortality from appendectomy is by no means inconsiderable, and hernia is a not infrequent occurrence. All tables show a much lower mortality when operation is performed between the attacks; therefore the aim of the practitioner should be to carry the patient through the acute stage and, if possible, to postpone the operation to a time when the disease is quiescent.

Perforation, gangrene or suppuration, conditions which call for immediate operation, and generally signalized by symptoms relating to the pulse, temperature, vomiting and pain, severe pain, with continued vomiting, require immediate surgical intervention. A rapid, feeble or very slow pulse also points to the necessity of operation. The temperature is of less importance than either vomiting, pain or the circulation. The necessity for surgical interference is well enough understood to enable the practitioner to appreciate the danger signals and to manage these cases with some confidence. We cannot emphasize too strongly the necessity for careful observation. It will not do to see one of these cases once or twice in the twenty-four hours, and depend upon being summoned by the nurse or family "if anything goes wrong." They should be seen every four or six hours during the danger period.

In the treatment of appendicitis, salines—the best being sulphate of magnesia—should be administered in teaspoonful doses dissolved in hot water, each six hours. After the more acute symptoms subside the intervals should be lengthened. In cases with severe vomiting and great pain the physician may be tempted to give anodynes or opium to quiet the alimentary tract until other remedies can be used. All that we can say is, "don't." These cases call for operation. We mean by vomiting, not the single emesis which empties an overloaded stomach, but the vomiting at intervals for two or three hours. The same is true of the pain; it is not the simple tenderness or distress above the right iliac fossa that calls for operation, but acute distress with great tenderness on pressure.

It is rare for a case of appendicitis to fail to yield to salines, if the stomach retains them and the bowels act freely. Their administration may be preceded by a washing out of the large bowel, and poultices may be applied to the abdomen. We are convinced that the treatment of appendicitis has but two alternatives: frequent large doses of salines or the surgeon's knife. Of course, recurring appendicitis should have an operation in the interval.

THE DANGER OF ANESTHETICS.

In American hospitals there is no organized special service for the administration of anesthetics. It is commonly placed in the hands of the youngest interne, who, after a few months' service as anesthetizer, becomes house physician and then passes to the more responsible position of house surgeon. This constant rotation in office does not provide for the accumulation of special skill in the administration of anesthetics. The practice of American hospitals in this respect is strikingly different from the English,

where the position of anesthetizer is one of importance and he is a regular member of the hospital staff. In London there is a society of anesthetists, and their reports contain a great deal that is of value in the study of anesthetics. American surgeons can, however, point with pride to the fact that our statistics show a less rate of mortality in the administration of anesthetics than do the English, and so far as the figures go they seem to demonstrate that the less skillful the anesthetist, the greater the safety of the patient. The Hyderabad Commission found an explanation for some of these varying statistics in the effects of climate, claiming that in warm climates chloroform is less dangerous than in colder countries. There may be something in this contention so far as the southern part of the United States is concerned, but the difference between the climate in England in respect to temperature and that of the northern part of the United States, particularly the Atlantic seaboard, does not admit of the explanation being applied to these regions. A much more rational explanation, to our mind, is found in the varying accuracy of statistics. In the English hospitals accurate records of anesthesia have been kept ever since they were employed in surgical work; no such records are available in American institutions. Here and there, operators or institutions have reported series of cases, but, we fear, in too many cases unfavorable results have been overlooked and the more favorable reported. In a large hospital with which the writer is familiar he knows that the average death rate from chloroform anesthesia is about one in 600 or 700 patients. The American text-books of surgery give the mortality of chloroform anesthesia at one death in from ten to twenty thousand. What is needed is a more perfect recording of statistics and the administration of anesthetics by experienced physicians. From personal observation we are satisfied that if all cases were accurately recorded the mortality from anesthetics would be very much larger in American hospitals than in English.

THE MORAL EFFECTS OF NEAR-SIGHTEDNESS IN SCHOOL CHILDREN.

It is only of late that there has been any investigation of pupils in our public schools from the standpoint of somatic developmental defects. Defective scholarship was always put down to willful indolence. In many cases want of attention was found to be due to defective vision or partial deafness. Recently a teacher, in the daily press, calls attention to the moral effects of near-sightedness. She says:

"For the last two or three years I have been making something of a study of the effect of near-sightedness in children. I think it is an interesting and important subject, particularly as defective vision seems to be largely on the increase among our pupils. Almost all near-sighted children develop certain characteristic traits. Boys who are naturally active and healthy are apt to become somewhat soured in disposition. I think that is because their infirmity puts them at a disadvantage with their companions in out-of-door sports. They can't play ball, for instance, or tumble about, and are never sure-footed. The other boys ridicule them, and they become solitary in their habits, so, for that reason, special pains should be taken to encourage near-sighted children to exercise. Another thing I have observed is that they are always nervous and apprehensive in the dusk. That is because they see imperfectly in half lights, and they should never be startled unnecessarily. Most cases of myopia, or near-sight, are discovered in the school room through inability of the pupil to see the blackboard. Before the cause is detected, however, the child often suffers unmerited rebuke, which has a grave effect on the formation of character."

THE COUVADE.

The "couvade" was an obstetric custom which resulted when the child's right of inheritance passed in the course of evolution from the mother to the father, who was henceforth supposed to have a secret yet intimate connection with the unborn and recently born child. The father was believed to enter intimately into all the ailments incident on pregnancy. In Yorkshire, England,* when an illegitimate child is born it is a point of honor with the girl not to reveal the father. The mother of the girl, however, goes out to look for him, and the first man she finds keeping his bed is he. The couvade was known in Ulster, Ireland, when invasion of that province took place under Ailill and Mebb with their Firbolg and other forces. All the adult males of the kingdom of Conchobar MacNessa were so laid up by the couvade that none of them could stir hand or foot to defend the country against invasion excepting Cuchulainn and his father alone.

DR. MONIN† states that the couvade still obtains in Corsica. He cites‡ from the Luciniade the following stanza:

"In France yet again, and among the Bearnais
And Navarre, when the woman's confined,
The wife gets up, the husband goes to bed."

"Hudibras" contains reference to the couvade.

Dr. Monin, ignoring the lack of date in relation to injurious results, urges the "couvade" as an argument in favor of early rising after confinement.

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*Ethnology in Folklore.
†Jour. des Sciences Med. de Lille, May 27.
‡N. Y. Med. Jour., July 8.

Society Proceedings

MEDICAL SOCIETY OF CITY HOSPITAL ALUMNI.

Stated Meeting, Thursday Evening, April 20, 1899, The President, Dr. Geo. Homan, in the Chair.

Gonorrhea, Its Complications and Sequelæ.

Dr. Henry Jacobson: Gonorrhea is far-reaching in its sequelæ and complications. We may first take up stricture, the common complication or result of frequent attacks of this disease. This stricture may become tighter and during the act of straining may cause rupture of the urethra back of it, and sometimes death, as a result of extravasation, or it may cause a fistula which will demand a secondary operation. Sometimes the fistula will open into the bowels, causing urethro-rectal fistula, which is very annoying; more frequently a perineal fistula occurs. Another complication is abscess. The gonococci invade the urethral follicles and cause an abscess; if it is in the fore part of the urethra this abscess may burst into the urethra and the pus passes out, leaving a persistent discharging fistula, which, besides being troublesome, keeps up a gleet. The way to treat this is to introduce the endoscope and find the discharging point, and with a fine probe, covered with cotton, apply campho-phenique, or peroxide of hydrogen, a strong solution of nitrate of silver or protargol. Sometimes these suppurating follicles open outside of the penis and cause a fistula difficult to relieve. Again, they occur in more serious situations, such as the prostate, and cause a prostatic abscess, which may open into the urethra, or they open into the bladder or back of the bladder and cause peritonitis and death. Another complication in this neighborhood is inflammation of the seminal vesicles. The catarrhal inflammation of the seminal vesicles is not so serious, but in many instances causes sexual neurasthenia. The method of treatment is to strip the vesicles through the rectum. This is done by having the patient lie on his back, with his feet drawn up, and, with a rubber finger-tip on the finger, the vesicles are stripped two or three times a week; improvement is marked in a few treatments. But inflammation in the vesicles does not always terminate favorably. An abscess may form, and rupture by extension, causing peritonitis, or the infection may extend to the peritoneal coat of bladder and endanger life; rarely, an abscess in this situation may open into the rectum, and fecal matter passing from the bowel into this closed cavity may cause toxemia and death. Another complication, or result, of stricture is cystitis, due to retained ammoniacal urine back of the stricture; the bladder soon becomes infected from instrumentation, blood or from rectum. The infection may travel to the kidneys and cause a train of diseases, starting with simple nephritis or catarrhal pyelitis on to suppurative pyelitis and pyo-nephritis, which may also cause death, and all due to a primary gonorrhea. Then again, there are troubles caused by the gonococci, and not only the gonococci, but by many thought to be the mixed infection of staphylococci, streptococci and gonococci, getting into the blood and passing into the different organs of the body, Gonococci have been found in the joints, in the endocardium and in the pleural cavity, causing pleurisy, and we all know how frequently the gonorrheal infection is transmitted to the eyes, sometimes to the nose and, some claim, to the mouth. In hospital experience I have seen quite a number of cases of gonorrheal ophthalmia. Gonorrhea in the female is serious. While connected with the dispensary for children, I had quite a number of cases to deal with in children, some of them due to rape. Gonorrhea in the young female is also serious, on account of its effects in after life. It had sometimes been necessary to give chloroform and swab out the vagina with nitrate of silver solution and afterwards the introduction of iodoform bougies. At that time nothing was known of the newer preparations of silver, which are probably just as effective and milder. In women the infection will travel into the tubes sometimes and leak out into the peritoneum, forming a closed cavity, and when the woman exerts hereself more than usual it will burst and cause sudden death, and unless a post mortem is made the cause of death is never known. Besides this serious result there are often symptoms of dyspepsia, reflex pains, etc., which produce a wretched condition and make a chronic invalid of the woman. Gonorrhea should be treated as soon as possible after it is discovered and strong antiseptics used to prevent extension. In acute cases protargol is one of the best agents, and also argonin. When used early it will frequently cause the disappearance of gonococci in the male inside of ten days or two weeks. After the disappearance of the gonococci some mild astringent should be used.

Dr. M. H. Post said he found cases in ophthalmic practice which looked suspicious, yet upon close questioning it was impossible to determine whether the infection was gonorrheal or not. Recently a married man, whom he knew quite well, called upon him with what appeared to be a gonorrheal infection; on examination the streptococcus, and not the gonococcus, was found. In ophthalmia neonatorum 23 cases had been collected where joint infection was noticed shortly after the appearance of the ophthalmia. The secretion from some of these joints was examined and the gonococci found, which was along the line mentioned by the last speaker in noting the presence of the gonococci in the pleural and endocardial cavities. Such cases as he had referred to, where there had been violent inflammation, were characterized by staphylococcus and streptococcus and not the gonococcus, and

this fact always made him feel doubtful about reports of new remedies, unless a microscopical examination had been carefully made. He said he would like to hear more about the use of protargol.

DR. JACOBSON said he used argonin before protargol was brought to his notice. Protargol will keep longer and can be given to the patient for several days' use and is more easily soluble. In many cases protargol was irritating, but argonin also proved irritable. Some years ago he had suggested that argonin would be *the* remedy in ophthalmia, and he noticed it is now used by oculists for gonorrheal ophthalmia. Of course, after the gonococci had infected the deeper tissues it was useless, Argonin is a lactate of silver and prepared in from one-half to 10 per cent. solution. He prepared the solution by first mixing it with cold water and putting a test tube of the mixture in water over an alcohol lamp, as heat dissolves argonin, and then drain through a piece of gauze. Protargol is usually made up by the druggist, or can be readily prepared by the physician; it can be used in less strength than the argonin solution. He thought it would be a wise thing for obstetricians to use such a solution, in two to five per cent., after the birth of the child in suspected cases; it is harmless and does not irritate. In the male he uses the protargol solution, followed by douching the urethra with warm permanganate solution.

DR. HYPES asked Dr. Post in what per cent. of the cases of ophthalmia neonatorum coming under the latter's care prophylactic treatment had probably been instituted.

DR. POST said he did not think prophylaxis was very prevalent. The cases which came to him were usually those in which no treatment had been attempted. He cited the case of a child recently sent to him, whose physician stated that he had used Credé's method, and yet the disease had developed. The speaker did not believe that Credé's method was very extensively used. Cases of ophthalmia neonatorum came usually from midwives and those people who do not even have midwives to attend them, and not from regular physicians. Occasionally a case was sent by a regular physician, but he believed that practitioners, as a rule, did not use any prophylactic treatment. The use of Credé's method always resulted in an inflammation of the eyes for several days. While putting a 10 per cent. solution of silver nitrate in the eye was a rather serious thing, yet it was perfectly justifiable where any suspicion of gonorrhea existed. It was, nevertheless, a hard thing for the patient to be subjected to when there could be no thought of anything of the kind being present. In hospital practice he considered it very proper to make the use of Credé's method general, but in private practice the physician is apt to know what he is dealing with, so that he is not in favor of the universal practice of Credé's method, and was far from advocating, as some physicians had done, the enforcement of this method by legislation. The use of a mild antiseptic could be made without danger to the eyes of the child, and be quite as effective. The pus of gonorrhea may be on the outside of the lids when the child is born, and when the eyes are opened, especially if carelessly handled by the nurse, it may be introduced into the conjunctival sac and allowed to remain there for several days; in that case we have a conjunctivitis. Yet he did not believe that in all cases of confinement the child should be treated with a 10 per cent. solution of nitrate of silver.

DR. HYPES said the introduction of one or two drops by the Credé method he had found harmless; but the use of half-a-dozen drops was hurtful. In suspicious cases he used the solution in one or two-drop doses, and immediately washed it out. He agreed with Dr. Post that it should be used as soon as the child was born, because then the eyes were not open.

DR. POST said he laid most stress upon the careful cleansing of the eyelids. That is where the infection comes from, and in his lectures to nurses he emphasized this rather than the use of Credé's methods.

DR. FRANK HINCHEY said he had read the report of some German physician some time ago who tried to show that orchitis or epididymitis was followed by sterility in the male. From a synopsis of one hundred cases, the author endeavored to ascertain about what number of patients who had had double orchitis or double epididymitis were afterwards sterile. He found a number of men who had no children, yet he found many who had children. Women who had suffered from double salpingitis have been known to bear children afterwards, although we would expect an occlusion there, just as we would in the vas deferens.

For some time past, the speaker said, he had been making slides of all cases coming to the female clinic at the Missouri Medical College Clinic, in an effort to determine the percentage of cases of gonorrheal infection, and in about 70 per cent. he found the gonococcus. The majority of these cases were, of course, from the poorer class of people, and husbands who had gonorrhea probably gave it little attention, being satisfied with three-day cures, etc.; but yet he felt that this was an alarming number, and probably the great majority of these women were utterly innocent in the reception of the disease. In most of these cases argonin was used in the strength of ½ to 2 per cent. solution—even stronger; but it did not seem to accomplish more than the ordinary table treatment together with the home treatment of permanganate and hot douches. Argonin was not so painful as other measures, and seemed to relieve the severe burning; but this was in connection with other treatment, which made it hard to speak of its especial merit. Some foreign writers,

in speaking of gonorrhea in women, advocate beginning high up in the uterus, and endeavoring to sterilize the field from above downwards. This the speaker thought was purely theoretical and not practical.

DR. H. W. SOPER said Neisser recommends that protargol be retained in the urethra from ten to twenty minutes. The speaker said he had been using protargol for some time, but found great difficulty in having patients retain it for that length of time, very few holding it more than five miuntes. He had one patient who said he retained it ten minutes, and in this case there was a really rapid and satisfactory result, the pus disappearing in ten days. In the treatment of acute gonorrhea he said he would like to have the opinion of the members on several points. First, in regard to internal medication. The prevailing method is to give alkaline diluents, rendering the urine mildly alkaline. Theoretically the gonococci develop only in an alkaline medium. If this was true, then to render the urine alkaline seemed to invite infection backward. Practically he had found the use of salol and boracic acid usually overcame the ardor urinæ, and rendered the urine sterile and mildly acid. In the last year or so he had abandoned the use of local medication in acute posterior urethritis, and gave boracic acid and salol or urotropin, and he had seen cases get well on this treatment. He believed the tendency was to avoid instrumentation in all active urethral inflammations.

DR. HYPES asked if he used salol and boracic acid in combination, and Dr. Soper said he did.

DR. HYPES then asked if remedies were not recommended under different conditions—one when the urine was acid, and another when it was alkaline?

DR. SOPER said the urine is usually mildly acid. Ricord observed that normal urine has a mild remedial effect. The speaker said he believed the urine could be kept sterile in gonorrhea, and that it should be kept slighly acid, imitating nature; he thought it wrong to render the urine alkaline.

DR. HINCHEY asked Dr. Soper if he would use the same treatment in chronic posterior urethritis—that is, where the patient has little or no discharge, and yet, when he "goes out" and "drinks a little beer," or has intercourse, he notices in a day or so a little flow, which, however, subsides in a few days, or, with a mild injection disappears, to reappear after another debauch. Sometimes there is only a mild irritation, which seems to come after the pus is allowed to pass from the posterior to the anterior urethra, but the speaker said he did not understand how the simple method of rendering the urine acid would cure a posterior urethritis.

DR. SOPER said he had reference only to acute posterior urethritis. He had some stubborn cases, which were treated locally a long time and which cleared up rapidly after stopping all local treatment and simply rendering the urine sterile. He believed local treatment could be kept up too long.

DR. HYPES asked the speaker what his experience with irrigation had been.

DR. SOPER said he believed the method of irrigation, if it could be properly carried out, was the best in acute cases. He had had best results with hot permanganate solution. If begun early and irrigations administered twice a day no other treatment was necessary. In these irrigations he made use of a Kieffer meatus nozzle, one end being attached to an ordinary fountain syringe; this gave an inflow and an outflow, and by determining the amount of pressure so as to overcome the compressor urethræ muscle, it will flow in and out and thoroughly cleanse the canal, using between a pint and a quart.

DR. HYPES asked what was the average duration of gonorrhea.

DR. SOPER said he had a series of cases treated by the irrigation method which showed the average to be ten days, meaning not only the disappearance of the gonococcus, but disappearance of the pus in the urine. The cases must be selected, however, and there should be complete abstinence from liquor and all sexual excitement.

DR. S. DRECHSLER said that when he was an interne at the Female Hospital a solution of two per cent. nitrate of silver was used in each confinement case by carefully cleansing the lids with sterilized gauze and everting them, pressing the everted lids together and having the nurse put on the lids one drop of the solution. From his experience he cannot see any benefit derived from the use of nitrate of silver in solution when comparing six cases delivered by him where the mother had gonorrhea on entering the hospital; silver was used with no bad effects. Out of sixty cases of confinement with no gonorrhea, eight developed acute conjunctivitis, with pus formation, after the use of silver. The possibility of one infant's eye being infected from another is excluded. From his experience in clean cases in the hospital, where patients are isolated from the class with septic or gonorrheal infection, he advised cleaning with warm boric acid solution and drying only. He could not account for pus formation after use of silver in clean cases and asked Dr. Post how he explained this.

DR. W. A. BROKAW said he did not think too much stress should be laid on the gonococcus developing in an alkaline medium. The blood serum is the best medium. His experience was that the sooner the urine was rendered alkaline the quicker the patient found relief. There was only a few cases of gonorrhea of the mouth on record, yet the fluids of the mouth are alkaline. In regard to protargol, he said he had used it; in one case he had a patient hold it for half an hour; this man seemed to have recovered in a

marvelously short time. The gonococcus was found in the urine, so that he was sure the case was genuine; notwithstanding this, he was not sure the case was acute. He said he had worked where hundreds of cases were treated, yet protargol was not found to be superior to permanganate of potassium. In the German army 5000 cases were treated, some with protargol and some with permanganate, with the result that protargol was discarded and permanganate substituted. In acute cases he thought it best to keep hands off. Instrumentation causes complications. Referring again to the German army, he said every case there was put to bed and placed on milk diet; this was considered the ideal method of treating gonorrhea. But it was found that keeping the patient in bed and on a milk diet did not prevent the disease from running its course just the same, that is, about six weeks. He believed that the majority of cases could not be cured in less than that time; some might get well sooner, but his experience was that most of them ran this course. He thought protargol was a good remedy, but did not believe it had a specific action on the bacillus.

DR. JACOBSON asked if Dr. Brokaw could say how many cases of posterior urethritis involving the prostate were cured in Germany during a year.

DR. BROKAW said he could not estimate that, as he did not keep track of individual cases, but he made it a point to ask each person under treatment, and in this way saw that about the same results were gotten here as in Germany.

DR. JACOBSON said he thought many cases of posterior urethritis often pass out of our hands and we think they have been cured, when they only are discouraged by long and constant treatment. The prostate is so rich in cavities that often the bacilli will get in there and lie dormant until the person indulges in drinking or excessive intercourse; then they become active and the patient thinks he has a new case.

DR. POST said Dr. Hypes departed from the rule in the application of Credé's method, as he had never heard of the use of a mild antiseptic wash immediately after the application spoken of anywhere.

DR. HYPES said he meant only the cleansing of the lids.

DR. POST then said he had never seen this method used at the Female Hospital during seven or eight months' service, yet there had not been one case of ophthalmia neonatorum, and he presumed the same class of women were treated there then as at the present time. There was occasionally a slight conjunctivitis, which disappeared under mild treatment, but these occurred in the hands of certain nurses, whereas there was a darky woman there who had charge of the darky patients and there never had been a case of sore eyes under her care.

Current Medical Literature

DISEASES OF CHILDREN.

Clinical Value of Staining the Red Blood Cells of Children with Methyl Blue.—ANTONIO IOVANE* has investigated this question in the following cases: Ten cases of simple anemia; seven cases of hereditary syphilis; sixteen cases of different diseases followed by anemia; eight healthy children and fifteen newly born infants. His conclusions were that in newly born infants the staining of the red blood cells is a physiologic fact, and in children a few months old a pathologic one. They are stained in all cases of anemia, either simple or symptomatic. The severer the anemia the greater the number of red blood cells that will become totally stained; as the case improves the less marked will be the reaction, and it will finally cease. Some of the corpuscles will be stained a yellowish-green color, but this has no particular significance.

Intubation in Diphtheria.—T. W. MOORE.† The advantage of the practice of intubation in the country is shown by a record of seventeen cases, of which six ended fatally, a ratio certainly far better than could be obtained by tracheotomy performed under the same circumstances. The recovery in a large percentage of recent cases is due to the early use of antitoxin and the tube, the physician now insisting on both at once, whereas formerly they were offered as last resorts.

On Variable Chorea of Brissaud—Three Observations of Chorea.—R. COUVELAIRE and O. CROUZON‡ described three cases of chorea which seem to belong to the special form of chorea, described in 1896 by Brissaud under the name of variable chorea of degenerates. This variety is characterized by the multiplicity and variety of the movements in regard to space, and by remissions and irregularity of the motions in regard to time, and, lastly, by the presence of stigmata of degeneration. The first of the three cases quoted is that of a degenerate epileptic, belonging without doubt to the classification of Brissaud; the other two are less typical, and possibly occupy an intermediary stage between the ordinary Sydenham chorea and the variable chorea of degenerates of Brissaud.

Eudoxine in Pediatric Practice —G. M. BLECH§ has obtained excellent results from the use of this remedy in diarrheal diseases of children; he has used it in sixty-three cases, with only two deaths, of ileocolitis, acute dysentery, chronic dysentery, diarrhea accompanying miliary tuberculosis, and catarrhal en-

* "La Pedriatria."
†Phila. Med. Jour., June 24, 1899.
‡Revue Neurologique, June, 1899.
§N. Y. Med. Jour., July 8, 1899.

teritis. It contains fifty per cent. of iodine and nineteen per cent. of bismuth, so there is no danger of intoxication from the latter constituent in very small children, even if eudoxine is administered in large doses. It is a reddish-yellow powder, tasteless and odorless, insoluble in water. On reaching the acid stomach the bismuth becomes separated, and stable bismuth compounds are formed, which exert a favorable action in diseased conditions of the stomach; the nosophen contained in eudoxine passes into the intestine, where it becomes changed into the sodium salt, antinosine, and acts as a disinfectant in the intestinal tract.

The Care of Delicate Children.—H. J. Mulford,* under this title, considers the child delicate because of a condition, actual disease having no place in the etiology; he is one in whom during health a serious condition is always suspected but never found. The cause of this condition lies in two factors—an auto-intoxication and the presence of adenoid vegetations; in most of the cases auto-intoxication is the main cause, though in cases in which adenoids are present an autotoxis will usually be found to underlie them. There are cases with adenoids alone, in which the obstruction to respiration seems to be the sole cause of the child's delicate condition; and there are, too, cases presenting a marked condition of auto-intoxication in which no adenoids can be found. Cases illustrating each of these groups are cited and the treatment of each given; this is considered under three heads—surgical, internal, and common sense, and includes removal of the cause of obstruction to respiration, the use of drugs in a limited way, attention to bowels and bladder, correcting the faults in eating, playing and resting.

Fatal Case of Infantile Scurvy—Autopsy.—A. Bassler† reports a case of this rather rare disease occurring in an infant, one year old. She appeared fairly well nourished; anemia well marked; no elevation of temperature; pulse, 80; she did not move her legs; they were held flexed and apparently powerless. Pressure over the lower end of femur and upper end of tibia was painful; gums were swollen, congested and blue; teeth loose, and blood flowed from the gingival junction; slight signs of rachitis; no disease of heart apparent. In sixty hours the child died; autopsy showed that the liver and kidneys were slightly enlarged, and showed much fatty degeneration; the cortical substance in the kidneys was very much swollen. On cutting down on the lower end of the femur, the muscles were dark in color; dark fluid constantly oozed from the cut surface; the periosteum was raised from the bone, fluctuating, and when cut thick grumous blood was forced out with a jet. The only change observed about the tibia was thickening and congestion of the periosteum about its upper extremity. The heart was enlarged, the muscular tissue soft, and contained areas of fatty degeneration; the valves were normal, excepting the mitral; these flaps were partly destroyed.

*Phila. Med. Jour., June 24, 1899.
†Phila. Med. Jour., July 15, 1899.

EYE, EAR, NOSE AND THROAT.

Diphtheritic Tonsillitis Due to Spirillum and to Fusiform Bacillus.—Since this affection was first described by Vincent, under the name of "angine diphtheroide à spirilles et bacilles fusiforme," there have been several cases recorded, and Dr. G. Schneider* reports one that simulàted very closely chancre of the tonsils. His patient, a young soldier, was admitted to the military hospital on March 15th with an ulcer of the right tonsil the size of a ten-cent piece, with regular borders and covered with a yellowish gray exudation. The tonsil was fiery red in color, swollen and somewhat hard. There was a very marked enlargement of the lymphatic glands of the neck, forming a hard, slightly lobulated mass. There was slight pain on swallowing, and an intermittent earache. There were no general symptoms and no fever. Disease began seven days before admission, but was so insidious that patient did not consider it necessary to consult a physician. He applied for treatment on account of the adenitis. The insidiousness of the case, the appearance of the ulcer as well as the indolent character of the adenitis, justified, to a certain extent, the diagnosis of chancre of the tonsil, but patient declared that he had not had sexual intercourse for over three months. A microscopical examination of the exudation demonstrated the presence of fibrin, pus cells, and a large number of fusiform bacilli as well as spirilla. Under the influence of local applications of tincture of iodine, and gargles of potassium chlorate, the ulcer took a healthy appearance in forty-eight hours, and healed so well that six days afterwards there was no trace of it. The adenitis as well as the enlargement of the tonsil lasted a while longer, but patient finally made a perfect recovery.

An Operative Case of Purulent Otitic Meningitis Cure.—A. Lucae† describes a case of purulent meningitis from an otitis and brings out the importance of the symptom of difficulty of hearing in the normal ear. The case is that of a fourteen-year-old boy who had chronic otitis, following an attack of measles in his fourth year. At the time of treatment he complained of tenderness under the right ear. The right mastoid was very painful to the touch and the right auditory canal was filled with purulent matter and full of granulation tissue. The left drum is depressed and a cicatricial indentation is seen in the ight reflex. R. whisper, not heard; L. whisper,

*La Presse Medicale.
†Berl. klin. Woch., June 5, 1899.

13.0; temperature, 38.5; pulse, 99; headache, beginning stiffness in the neck; temperature, 39.0; pulse, 105. Operation was resorted to through the mastoid; the dura opened and pus evacuated from the brain substance itself; recovery slow, but uneventful. The case, then, is a basilar meningitis, limited in extent and situated in the right temporal lobe. Special attention is called to the symptoms of the unaffected ear. This is explained by the fact that in difficulty of hearing, produced by meningitis, the unaffected ear is in a hyperemic condition and that the labyrinth is in a similar state. The author recommends that in all cases of otitic meningitis, the unaffected ear should be carefully examined.

Myopia ; Operative Treatment in High Degrees Thereof.—A. T. HAIGHT* refers to myopia of less than 12 diopters merely to suggest a régime for them and discusses operative treatment for higher degrees of myopia; this operation consists in the removal of the lens from the eye, and by so doing the following facts are to be considered: (1) We reduce the myopia from 10 to 16 diopters, according to the eyes of the patient; (2) we improve distant vision and impair near vision; (3) we destroy the power of accommodation; (4) we stop the progress of myopia; (5) we materially lessen the probability of complete blindness resulting from choroiditis or detachment of the retina. For people compelled to do near work the operation offers few advantages, but there are many who will derive great benefit and advantages from the operation. A brief report of the results obtained by a number of ophthalmologists is given. The results in his own cases have been highly satisfactory, and operation is advised in cases where myopia exceeds 12 diopters in either eye, in patients between 10 and 30 years of age, confidently expecting material improvement of vision in by far the greater percentage operated on.

The Pathology of Catarrhal Deafness.—F. W. HINKEL† confines his treatment of this subject to a consideration of the influence upon the bearing of pathologic conditions of adjacent and co-ordinating mechanisms and organs, and an estimate of the influence of diathetic and constitutional conditions upon the function of the middle ear. The important mechanism concerned in deglutition and articulation is conditioned and dependant upon so many other organs of the digestive, respiratory and speech tracts, that it is evident how easily it may become impaired by local or general diseased conditions, and thus by interference with the action of the soft palate affect the middle ear. The earliest and most frequent cause of impaired hearing is adenoids; of similar, but not so injurious effect or so frequent, are hypertrophied faucial tonsils; obstructive disease of the nose is another important causative factor; derangement of the digestive tract is often accompanied by pharyngitis; the rheumatic diathesis frequently manifests itself in recurring tonsillitis and pharyngitis, from which may develop a secondary catarrhal otitis. Most cases of chronic catarrhal deafness have their origin in the hypertrophic form of middle-ear disease and prompt treatment is very often of great benefit.

Involvement of the Eye and Ear in Cerebro-Spinal Meningitis.—W. CHEATHAM* refers to the epidemic form of the disease; catarrhal conjunctivitis appears only; edema of the conjunctiva and lids occurs sometimes early when due to invasion of the orbital tissues with the meninges; later it is metastatic or the invasion is through the superior orbital fissure or along the veins. The motor nerves of the eye are frequently involved, as the base of the brain seldom escapes invasion; this involvement may be paralytic or from irritation. Conjugate deviation is sometimes and photophobia often present; suppuration of the cornea is very rare. The pupils are liable to be dilated, one or both may react to light even when the patient is blind. The choroid, and with it the whole uveal tract, is often involved; the most usual form of inflammation is seroplastic and later purulent. Involvement of the optic nerve may be from direct extension, metastatic or by direct invasion. The optic and acoustic nerves are the most common of the nerves of special sense to be involved. When the convexity of the brain and the cortical sight-centers are involved, temporary or permanent blindness may result with no ophthalmoscopic symptoms. They may show later in an atrophy.

Seeing Capillary Circulation in One's Own Retina—C. E. NORTON† endeavors to demonstrate the accuracy of his belief that it is possible to see the corpuscles of the blood moving in the capillaries of the retina and that these corpuscles are not the same as muscæ volitantes. These bright objects can be seen most clearly if one looks at a clear sky through several thicknesses of dark blue glass. The particles then seen move in definite lines, are not affected by gravity, do not rebound, never move backward and forward in the same path; in all these respects muscæ differ. The motion of these particles corresponds to that seen in the capillaries in the web of a frog's foot when examined under the microscope; other facts are cited to demonstrate that these bodies are corpuscles and not muscæ. The practical bearing of the subject lies in the fact that this appearance is sometimes seen without the aid of blue glass and is then evidence of ocular overwork or a premonitory symptom of neurasthenia.

*Jour. Amer. Med. Assn., July 15, 1899.
†Phila. Med. Jour., July 15, 1899.

*Phila. Med. Jour., July 15, 1899.
†Jour. Amer. Med. Assn., July 15, 1899.

Unilateral Emphysema of the Right Frontal Orbicular Region.—Dr. Joncheray* reports that a young Italian acrobat, 15 years old, had the custom of blowing his nose several times just before entering the arena. One night on doing this he heard a slight crackling in the right eye and felt a little pain; his eye began to move up and down and became sightless. An examination immediately after the accident revealed both lids of right eye enlarged, and over the right frontal sinus an elastic tumor of the size of a filbert. There were crepitation and all physical signs of emphysema. A rhinoscopic examination showed slight catarrhal inflammation of nasal passages with enlargement of the middle turbinated bones and a mucous polypus in middle meatus. There was no fracture of septum, turbinated bones nor vault of nose, and no perforation of lachrymal duct. There was a small drop of blood behind the middle turbinated bone of the right side. Nasal polypus was removed, and an expectant treatment was instituted. Sight returned on the third day, and the emphysema disappeared completely on the tenth day. After examining all possible hypotheses the author is of the opinion that this case can be explained by the presence, in the roof of the orbit, of the lacuna described by Zuckerkandl.

The Relation of Ophthalmology to General Medicine.—G. G. Lewis† very briefly considers some of the affections and toxic conditions in which the eye participates, and emphasizes the importance of recognizing the existence of serious errors of refraction and muscular insufficiencies; too much stress cannot be laid upon eye strain as a factor in the production of functional nervous disease, and it will often be found to be the cause of headache, vertigo, hysteria, neuralgia, neurasthenia, chorea, epilepsy and nervous prostration. The importance of an early diagnosis is recalled in iritis, glaucoma, optic neuritis, sympathetic ophthalmia, gonorrheal conjunctivitis, corneal ulcers, and retinal hemorrhage.

GYNECOLOGY AND OBSTETRICS.

A Contribution to the Theory of Tubal Carcinoma, Illustrated by a Case of Primary, Pure Alveolar Carcinoma of the Tubal Wall.—B. Friedenheim‡ describes a case of primary carcinoma of the tubes, in support of the new theory of the possibility of a primary growth in this region. The left ovary and tube were extirpated from a woman who showed symptoms of a new growth affecting these organs. The result of the microscopical examination of the tumor was as follows: A primary alveolar cylinder-cell carcinoma with a connective tissue stroma involving the middle third of the tube. The mucous membrane of the tube was found free from carcinomatous involvement. No evidence of a previous inflammation of the mucous membrane was found; the point of origin of the process, by exclusion, was probably from a gland of the mucous membrane of the tube or an accessory tube, according to Kossmann. The primary nature of the growth in question is proven by the fact that the uterus was found normal and that the mucous membrane was intact.

A Case of Spontaneous Inversion of the Uterus.—Dr. Queirel* reports that he was called to deliver a woman whose womb had, during pregnancy, been deviated towards the left side. Labor was normal with no particular incident up to the birth of the child. Immediately after this and before the delivery of the placenta the mother, against the advice of the accoucher, began to bear down very strongly, and in a short while the inverted uterus made its appearance at the vulva. There had been no efforts to deliver the placenta either by expression or by traction on the cord, so that the inversion was due solely to the bearing down efforts of the mother.

Tuberculosis of the Vulva and Vagina.—C. Davidsohn† reports a case of tuberculosis of the vagina and the vulva, found in a woman who died of an acute miliary tuberculosis. The tubes and the ovaries were thickened and filled with pus, the mucous membrane of the fundus and body of the uterus, vagina and vulva and the labia minora studded with fresh miliary tubercles, while the cervix, urethra, bladder and ureters were free from them. Microscopic examination showed a round-cell infiltration without any caseation but with a few tubercle bacilli to be seen. The uterus and its appendages are the seat of an old tubercular process from which the acute miliary attack came, while the vagina and the vulva showed a fresh tuberculosis which could be microscopically proven by the demonstration of tubercle bacilli and the typical histologic appearance. Tuberculosis of the labia is very rare and this case forms an almost unique example.

Notes on the Induction of Premature Labor.—H. C. Coe.‡ Experience has shown that the uterus is more tolerant of rough handling than was formerly supposed, as is shown by ovariotomy and appendectomy performed during pregnancy without causing premature labor. In his own practice, abortion has not occurred from dilatation of the cervix, provided the membranes are not ruptured. Mere dilatation rarely excites more than transitory contractions, if any. The use of a bougie is uncertain and attended with considerable risk of rupturing the membranes; the introduction of gauze and bag well within the os

*La Presse Medicale.
†N. Y. Med. Jour., July 15, 1899.
‡Berl. klin. Woch., June 19, 1899.

*La Presse Medicale.
†Berl. klin. Woch., June 19, 1899.
‡N. Y. Med. Rec., July 8, 1899.

internum does not invariably induce labor, as proved by five cases cited, in all of which manual dilatation was necessary in addition, as the cervix was softened and partly dilated, but no uterine contractions excited by the introduction of gauze for twenty-four hours.

INTERNAL MEDICINE.

Some Remarks on Chronic Bright's Disease.—A. R. ELLIOTT* discusses under this title chronic interstitial nephritis or granular kidney; the disease is of interest not only because of its frequency but on account of its insidious course and elusive manifestations; it is essentially a chronic process and only discovered usually after the morbid changes have advanced so far as to interfere with the functional capacity of the kidneys. If discovered in its incipiency, the advance of the disease may be arrested or retarded. Frequently the disease it not discovered at all, but sudden death is attributed to apoplexy or heart disease. The symptoms fall into two groups—those referable to the kidneys and those arising from alterations in the circulatory apparatus; the former are usually much more tardy and latent. During the early stages polyuria is the only constant urinary symptom and is not, as a rule, noticed by the patient; diagnosis therefore must depend on physical signs referred to the circulatory apparatus and are evidences of cardiac enlargement, thickened arteries, and high arterial tension. During the initial stages changes in the urine are difficult of satisfactory demonstration; albuminuria is slight, may not be present always, but is always a symptom of importance. The specific gravity is usually reduced and there is a diminution of solids, especially of urea. Hyaline casts can usually be found in centrifuged specimens, but they are few in number and difficult of detection; numerous examinations of the urine are necessary. In general, only two conditions can lead to thickened vessels and increased tension, viz., atheroma and interstitial nephritis; if the former can be eliminated, we should search carefully to confirm the latter, remembering that both conditions may coexist. Hereditary predisposition is an important element and is often present when it is recalled how frequently apoplexy, heart disease, gout and dropsy are diagnosed in such cases. In its early stages the disease responds in a flattering manner to treatment, but the prognosis must always be guarded.

Acetanilid Habit.—A. W. GILMORE† reports the use of 5 to 10 grains of acetanilid, with an equal amount of sodium bicarbonate, daily for a period of twenty months. The patient, a woman of 58 years, suffered from abdominal discomfort, with occasional pain, causing insomnia, for the relief of which the drug was originally given in 2½-grain doses, and gradually increased to 10-grains. There were no adverse symptoms induced by the drug, neither cyanosis or mental aberration, as are said to occur in its prolonged administration.

Chronic Interstitial Nephritis.—A. R. ELLIOTT* discusses the treatment of the heart in this disease, making no direct reference to the measures employed for the control of the renal condition. The conditions which are met with here are thickened and inelastic arteries, which are constantly subjected to the strains of heightened tension, and a hypertrophied and sensitive heart muscle. It is best to abstain from any active intervention as long as there are no definite subjective symptoms present. In the early stage of nephritis we should begin, while compensation is still maintained, to take measures to insure permanence of the existing conditions by regulating mode of life, diet, clothing, exercise and bathing. Each of these subjects is briefly treated. Rest must be enforced at the earliest sign of cardiac embarrassment, but massage and passive movements may be employed to obviate the undesirable results of prolonged bodily inaction; when necessary, paraldehyde, trional or sulphonal may be used as hypnotics. Medicinal measures to be employed while compensation exists are limited to vasodilators. To meet alarming symptoms and to produce at once a decided effect on blood-pressure no measure is so useful as free catharsis, which is best obtained by the administration of some preparation of mercury. The vasodilators most useful in controlling arterial tension are the nitrites and iodides; for rapid effect, nitroglycerin is the drug of choice. When there is indication of failing compensation, digitalis and its congeners are admissible, and a nitrite or iodide should always be combined with them, for some element of tension is never lacking. As to the applicability of the Schott gymnastic methods in these cases, no general rule can be laid down, but each must be judged on its own merits. By placing the heart on a therapeutic parity with the kidneys the patient's interests can best be served and his condition most securely palliated.

Variations in the Manifestatious of Malaria.—C. D. CENTER† classifies the causes for the varied forms of malarial manifestations as (1) difference in the causative parasites; (2) individual differences or personality; (3) variation in locality and time; (4) variation as shown by deviation from or failure in the use of quinine, the recognized specific remedy. After a brief discussion of each of these factors he recapitulates: Malaria is a generic term embracing several distinctly separate manifestations of disease caused by distinct and different parasites which differ in age, habits, and in many morphologic character-

*Jour. Amer. Med. Assn., July 15, 1899.
†Phil. Med. Jour., June 24, 1899.

*Jour. Amer. Med. Assn., July 15, 1899.
†Philadelphia Medical Journal, July 15, 1899.

istics, these differences causing the various manifestations in the clinical study of the disease, and necessitating the use of other remedies than quinine for satisfactory and permanent relief.

Some Aspects of Chronic Malarial Infection and Their Treatment.—W. H. THOMSON.* Functional nervous affections due to the toxin of malaria are very common; the periodical neuralgias only are referred to, particularly on account of the beneficial effect of ergot in cases which have resisted other remedies; given in drachm-doses of the fluid extract, repeated in two hours if necessary, it was uniformly successful. The systematic treatment of a true malarial attack should continue for at least six weeks; the obstinate cases so frequently met with occur in patients treated only till the symptoms disappear; if quinine were administered for six weeks, relapses and chronic infection would be less common. The course of treatment recommended consists in the administration of a mercurial purge, given toward the close of the febrile paroxysm and made to act within six hours; the entrance of the fullest doses of quinine into the circulation should coincide with the time of sporulation of the parasite, one to two hours before the time of the chill; it is best given in three equal doses, an hour apart, the last one to two hours before the expected paroxysm, thus avoiding the gastric irritation caused by one large dose. In some obstinate cases good results were obtained by the addition of an equal quantity of powdered ginger to the quinine, or pulverized capsicum in the proportion of one grain to four of quinine; in forty-seven cases which had resisted all other methods, the administration of camphorated tincture of opium as an adjuvant to quinine was successful in reducing the temperature; it was given in three daily doses of half an ounce each, with doses of fifteen grains each of quinine and ginger twice a day. In forty-eight hours all the cases had normal temperature and no relapse occurred.

The Treatment of Certain Typhoid Fever Cases at the U. S. General Hospital, Fort Monroe, Va.—C. V. ANDERSEN† gives an outline of the treatment pursued by him in 87 cases, of which only one was fatal; being in tent-wards, baths were not given; calomel was administered two or three times a week in doses of 2 or 3 grains, depending on the condition of the bowels and progress of the disease; strychnine was also given in every case. Two drachms of brandy in water was given when necessary. Nourishment consisted exclusively of milk till two weeks after the temperature became normal; no patient was allowed to sit up in a chair till three months after normal temperature had been noted. Of the 86 cases cases thus treated 41 were desperate, 29 had hemorrhage from the bowels, and 33 had delirium. A complete history of one desperate case is given; several profuse hemorrhages occurred, and transfusion of normal salt solution was resorted to; the patient made a complete recovery. Priority is claimed for this procedure in hemorrhage occurring in typhoid fever.

*N. Y. Med. Jour., July 15, 1899.
†Phila. Med. Jour., July 15, 1899.

Phthisis; Its Etiology and Treatment.—G. D. BARNEY.* To effect a cure in phthisis the conditions of cure must exist—*i. e.*, (1) The absence of hereditary predisposition; (2) the early recognition of the disease; (3) the resisting power of the organism; (4) the organic state of the patient; (5) the early occurrence of hemoptysis; (6) a natural tendency to a fibrous rather than a caseous metamorphosis of exuded products. Two important factors are to be considered as the causation of phthisis—the presence of tubercle bacilli within the cell tissue, and the resisting power of the organism to its growth. Treatment may be carried on in either one of two ways, or both: by attacking the tubercle bacilli within the organism, thus to weaken and destroy them, or by promoting the general nutrition; the greater success has attended the latter way. The methods to be employed—precautions, diet, mode of life, climate, and drug treatment—are very explicitly dealt with.

Systolic Mitral Murmurs; Their Transmission, with Special Reference to the Nature of So-Called Anemic Murmurs.—H. D. ARNOLD† summarizes his studies as follows: Mitral systolic murmurs may not only be heard at the mitral area at the apex and extending toward the axilla, but also at the mitral area in the back, along the left border of the heart, in the second left interspace at the base, and at the "valvular" area. Anemic murmurs extend by varying gradations around the left border of the heart, to the apex, and to the mitral area in the back, assuming the characteristics of a true mitral regurgitant murmur; this transmission to the mitral area in the back may exist whether the murmur is heard at the apex or not, and even in what appear in front to be typical anemic murmurs. We find a dividing line between the so-called anemic and the mitral murmurs. The presumption that these different gradations in the distribution of the murmur all have a common origin is strengthened by finding them necessarily in the different stages of the same case. Weakened action of the heart exists in anemia as a result of poor nutrition; weakened action is an adequate cause for mitral insufficiency, whether dilatation exists or not. The points which are new in this demonstration are the study of the area of distribution of the murmurs rather than the point of maximum intensity, the demonstration of the transition stages between anemic and mitral regurgitant murmurs, the demonstration of

*N. Y. Med. Jour., July 15, 1899.
†Jour. Amer. Med. Assn., July 15, 1899.

the frequency with which anemic murmurs are heard in the back, and the importance placed on the transmission of murmurs by pulmonary tissue.

NERVOUS AND MENTAL DISEASES.

The Etiology and Treatment of Chorea.—J. COLLINS and I. ABRAHAMSON* discuss the subject entirely on observations made in 78 cases seen in their clinic. The patients varied in age from 4 to 41 years, the average age of the first attack being 9.5 years; the vast majority occurred between the 7th and 15th year; 32 of the cases were males and 46 females, or about as 2 to 3. As to seasonal relationship, 34 per cent. occurred in the summer, 28 in the spring, July having the largest number. In 27 per cent. a neuropathic family history was present and in 21 per cent. a rheumatic history; no disease, save rheumatism, seemed to have particular causal relationship to chorea. The attributed cause as given by the parent was fright, injury, rheumatism, overwork, excitement, etc. The tendency of the disease to relapse is shown by the recurrence in 32 of the 78 patients. The indications in treatment are met by attention to general nutrition, proper use of hydriatics and exercise, interdiction of excessive mental application, and by the maintenance of intelligent mental and physical discipline. Arsenic and exalgine ameliorate the severity and abbreviate the duration of the attacks.

A Clinical Study of Twenty-four Cases of Paralysis Agitans.—J. COLLINS and L. J. J. MUSKENS† consider the causes, frequency, the initial symptoms and mode of onset of this disease; in 536 successive patients in the clinic there were seven undoubted cases of paralysis agitans and one doubtful one, a per centage of 1.30; with reference to the nationality, one-half of all the twenty-four cases studied were of the Irish race; as to sex, their statistics show that the occurrence of the disease is three men to one woman. It occurs most frequently in the fifth decade and gradually diminishes to the eighth. In four cases there was a history of direct inheritance and in four of indirect heredity. The alleged causes, as far as any could be ascertained, were those that may be classed under the head of psychical or emotional trauma; a striking feature of all the cases was that they had all lived temperate, wholesome lives. Despite the fact that the symptoms are characteristic and constant, the early clinical features of the disease are quite variable; the course is uniformly progressive; it lasts from five to thirty years, and the patients usually die of some intercurrent disease. No medicament has yet been discovered that has any influence in stopping the course or changing the outcome of the disease. Dietetic and disciplinary treatment are of the greatest importance; it is absolutely necessary that the patient has the personal care of an attendant or one of the family; lukewarm baths, light massage, and residence in suitable climate, add to the comfort of the patients. Percussion, Swedish gymnastics, suspension and the use of electricity, are not advocated, some being detrimental and all of no value.

Report of a Case of Alcoholic Multiple Neuritis, With Autopsy.—J. H. LARKIN and S. E. JELLIFFE* report a case of simple, uncomplicated alcoholic multiple neuritis and the pathologic picture should show the effect of a sudden acute alcoholic poisoning. Other factors which are known to be the cause of changes in the ganglion cells of the central nervous system can be excluded. This is a condition which is extremely rare among cases reported which have come to autopsy. From their investigations of the present case the following general conclusions seem warranted: I. In fatal alcoholic multiple neuritis grave variations from the normal structure (equivalent picture of Nissl) of the ganglion cells of the anterior and posterior horns, the columns of Clarke, the nucleus of Stilling, and the nuclei of the medulla are always to be found when studied by appropriate methods. II. These etiologic variations are characterized by their extreme polymorphism. They may consist of simple swelling of the ganglion cell or of its chromatin particles; fine granular disintegration of the chromatin; destruction of the chromatin; central, peripheral, perinuclear and general chromatolysis; wandering of the nucleus to an eccentric position, and destruction of the achromatic structures to complete disintegration of the cell. III. To what extent these lesions are due to the direct action of the alcoholic poison on the molecular structure of the ganglion cell (primary) or the degeneration of the peripheral extensions of both sensory and motor neurons (secondary) cannot be accurately determined. The conclusion drawn is that the peripheral degeneration is the much more important one of the two. IV. The best hypothesis yet offered to account for the degeneration of the cells of the column of Clarke is that of van Gehuchten by the assumption that the ganglion cells of a nervous chain exercise the one upon the other a trophic action, the suspension of which produces a chromatolysis and disappearance of the corresponding cells.

An Acute Cerebral Ataxia.—M. DINKLER† described this rare form of ataxia. After an acute febrile attack of a somewhat vague nature, an old laborer, æt. 33, began to have difficulty in the voluntary motions of his body and limbs. The patient could move his muscles well enough, but could not

*The Post-Graduate, June, 1899.
†N. Y. Med. Jour., July 8, 1899.

*N. Y. Med. Rec., July 8, 1899.
†Neurog. Centralblatt, June 18, 1899.

complete the simplest co-ordinated movement, walking or sitting, being alike impossible; a peculiar shaking of the head was also present, which increased upon slight emotion; speech was also affected and well-known words and expressions were spoken only with the greatest difficulty; with practice the patient gradually improved, and by this unconscious exercise-cure, he developed almost normal control over his muscles and co-ordination. From a clinical standpoint the diagnosis is clear enough; concerning the pathogenesis, it is probable that we have to do with some infection which principally affected the cerebrum. The clinical picture in some respects seems to be that of an acute disseminated sclerosis. It is probable that the spinal cord is unaffected and that the cortex is not the sole seat of the lesion. The most plausible explanation of the position of the process is in the corona radiata and in the basal ganglia. There have been only a few cases reported of this type. Leyden reports one and C. Westpal five. Ebstein's is the only one in which there was an autopsy. In the latter case there is now no doubt that there was an acute multiple sclerosis.

New Investigations on the Localization of Mental Processes. — DR. A. CRAMER* sums up, under the above title, the pith of seven articles which have appeared during the last three years. More than mere mention of the same would be impossible here. A perusal of Cramer's paper would serve as a sort of literary "short-cut" to those contemplating original work on the subject above mentioned.

Tabetic Crises with High Fever.—P. K. PEL† describes, in a tabetic individual, crises which are accompanied by attacks of fever. The prodromal symptoms of these attacks were intense pain in the lower extremities, peculiar paresthesia, and a general malaise. The fever was preceded by a chill. The temperature reached 40° C., and the pulse rate 150. There is no doubt that the diagnosis was justified in this case; a possible angina, influenza or malaria was carefully excluded.

SURGERY.

Cyst of Pancreas Following Trauma.—J. VAN DER LAAN,‡ after discussing the occurrenceand variety of tumors found in this region and entering into the question of differential diagnosis, gives the history of a case occuring in a boy nine years old. While coasting, he fell from his sled and was struck in the abdomen by another sled. A large, rapidly-growing tumor having appeared in his abdomen in the course of three weeks, examination of some of the fluid withdrawn by aspiration proved the presence of the amylolitic ferment of the pancreas; within three hours after the aspiration the wall of the cyst ruptured, the tumor disappeared, and symptoms of peritonitis at once developed; the abdomen was immediately opened, large quantities of saline solution used to flush the peritoneal cavity, and the abdominal wall closed; primary union resulted. The cyst reappeared in three weeks, when the second operation was undertaken, the cyst-wall being sewed to the edges of the abdominal incision, a drainage-tube introduced, and the rest of the wound closed as usual. There was profuse discharge for a few days; the tube was then gradually shortened and removed entirely at the end of three weeks. In six weeks after the operation the fistulous tract had completely closed and the boy appeared as well as ever.

A Case of Diaphragmatic Hernia of 14 Years' Standing, Resulting in Marked Displacement of Organs,—F. W. FLAGGE and T. P. PROUT* report a case of diaphragmatic hernia, which resulted in a displacement of the spleen, the entire small intestine, the caput coli and vermiform appendix into the left chest cavity; the heart was displaced to the right about two inches; the left lung was collapsed and carnified. An attack of strangulation of the intestine after 14 years gave rise to conditions which caused his death.

Modern Treatment of Fractures.—E. A. TRACY.† The duty of the surgeon is to get the fragments into as accurate reapposition as possible and provide an efficient and safe fixation for them; mechanic is superior to physiologic fixation in every case. The one fracture which is best treated without any fixative appliance is that of the neck of the femur in the aged; careful nursing is the all-important factor in these cases. The timely and right application of passive motion is imperative in the treatment of fractured joints, and the indications for massage in each case should be followed. The scientific treatment of fractures demands that the surgeon should mould on the patient a splint made from a plastic material and applicable next to the skin; gummed felting and wood-fiber splint material are the best to be employed; the latter is preferable because lighter, cleaner and cheaper, and in compound fractures it permits of powerful antiseptic treatment of the splinting. Plaster-of-Paris should be no longer used in the treatment of fractures.

Removal of the Gasserian Ganglion.—The patient of SABINO COELHO,‡ a woman of 40, had neuralgia for six years in all three branches of the fifth nerve of one side. The middle and lower branches had been cut with recurrence after three months. Complete removal of the ganglion with intracraneal

*Centralblatt für Path. u. path. Anatomie, June 15, 1899.
†Ber. klin. Woch., June 26, 1899.
‡Jour. Amer. Med. Assn., July 8, 1899.

*Phila. Med. Jour., June 24, 1899.
†Jour. Amer. Med. Assn., July 8, 1899.
‡Revue de Chirurgie, May 10, 1899.

resection of the two lower branches was made. Eye symptoms were prominent in spite of aseptic precautions. At the end of a year there exists insensibility to pain, touch, heat, etc., in all the skin and mucous membranes supplied by the trigeminus. Sense of smell has gradually diminished on the affected side; that of taste remains intact.

[The article is rich in statistics and will be found of value to anyone contemplating this variety of surgery.—REVIEWER.]

Post-Operative Hernia.—F. SHIMONEK* reaches the following conclusions in a discussion as to the methods to be employed in order to avoid post-operative hernia: (1) The careful approximation of like tissues, the details of the method being immaterial; (2) strict asepsis, gentle manipulation, avoiding the use of antiseptics; (3) avoiding the constriction of the edges of the wound; (4) allowing sufficient time to elapse before the patient is permitted to assume the upright posture and having the patient wear an abdominal supporter for about one year; (5) the use of slowly absorbable or non-absorbable suture materials for buried sutures. Of these, kangaroo tendon, buried silkworm gut and silver wire are perfectly harmless.

Report of Three Cases of Multiple Pistol-Shot Wounds of the Intestine.—G. WOOLSEY† gives briefly the histories of three cases and discusses some points suggested by them. In the first case operation six hours after the accident revealed eleven perforating wounds of the small intestine, which were closed by Lembert sutures, and the abdominal cavity irrigated. The patient died forty-eight hours after operation; autopsy showed no evidence of general or progressive peritonitis, and the death was due probably to septic poisoning. In the second case sixteen perforations were found; twelve were closed by Lembert sutures, and three inches of intestine, containing the other four, were excised and end-to-end anastomosis was done with a Murphy button. Patient made an excellent recovery. In the third case two wounds of the ascending colon, two of the transverse colon, and two of the stomach were found; all were sutured by Lembert sutures; the patient eventually made a good recovery. In both cases large quantities of hot saline solutions were used to wash out the abdominal cavity and to diminish shock. The insufflation of hydrogen gas as an aid to diagnosis is not advocated.

Appendicitis in a Child Nineteen Months Old; Operation; Recovery.—R. MILLON‡ reports the following case: A child 19 months old, in previous good health, was suddenly taken sick with malaise, fever and constipation. February second, his temperature was 39.5°; pulse 150; tongue was coated; abdomen tender to pressure; there was some diarrhea with dark passages containing mucus. A week later patient was much worse; eyes constantly closed; face showed suffering; he lay with legs flexed upon abdomen, right one more markedly. There was rigidity of abdominal muscles and tenderness in lower part of abdomen. Diagnosis of appendicitis was made and an operation was performed. On opening the abdomen a very large abscess was found behind the cecum. That night temperature came down to normal, and patient made a perfect recovery.

Rubber Gloves or Gauntlets.—J. E. SUMMERS, JR.,* urges the use of sterilized rubber gloves, under these conditions: (1) In obstetric practice; (2) in operating on all forms of septic cases; (3) in the examination and treatment of all forms of septic, infectious diseases; (4) in operating on clean cases, soon after operations on infected ones; (5) in abdominal sections following vaginal operations on the same individual; (6) in the examination of fresh wounds after recent examinations of or operations on dirty cases; (7) in all forms of rectal surgery. They also are a protection to the physician and surgeon against infection.

Destruction of the Sphincter Ani by a Phlegmon; Plastic Operation on the Levator Ani and Gluteus Maximus; Continence.—This operation, for which originality is claimed by K. G. LENNANDER,† is divided into six stages: I. Longitudinal incision over sacrum, coccyx and to anus, around which it is continued in horse-shoe shape. II. Levator ani and coccygeus muscles are laid bare. III. Separation of levator ani from coccyx and muscle of same nerve. IV. Defect thus made in floor of pelvis is closed by drawing glutei maximi together in the median line. V. Forward segment of levator ani is so affixed to rectum and anus that traction is exerted on both sides. VI. Glutei maximi and skin are sewn together and to the new anal opening in the median line. The author operated successfully on one patient; wound healed slowly by secondary intention.

Excision of the Right Superior Cervical Ganglion of the Sympathetic for Glaucoma.—The authors of the above, JAMES MOORES BALL, EDWIN C. RENAUD and WILLARD BARTLETT‡ claim that their operation is the first of its kind in America for glaucoma. The case was one of the chronic irritative variety with a tension of +3. Pain had been a marked symptom, patient having scarcely slept for weeks, until the night following the operation; no opiate being used. Patient made an uninterrupted recovery without presenting any untoward effects of the resection of her sympathetic. Of course the case is too recent for

*Medical Standard, July, 1899.
†N. Y. Med. Jour., July 8, 1899.
‡La Presse Medicale.

*Jour. Amer. Med. Assn., July 8, 1899.
†Centralblatt für Chirurgie, June 24, 1899.
‡N. Y. Med. Jour., July 1, 1899.

conclusions as regards a permanent result (reported ten days after operation, for sake of priority), still the authors consider the procedure justified if nothing more than relief of pain be accomplished. [Reviewer can state positively, two months after the operation, that there has been no return of the periorbital pain, and further that intraocular tension has gradually decreased.]

Operations for Club-Foot.—Attention is called by A. SCHANZ* to the uniformly unsatisfactory results attained by the various forms of osteotomy in the treatment of club-foot. He has conceived the plan of making a tenotomy (tendo-Achilles) six weeks after the primary operation instead of during the same; he hopes in this manner to greatly improve the results in club-foot treatment.

A Case of Fracture of the Inferior Maxilla Treated with Kingsley's Apparatus.—The case of G. MAHE† presented two fractures, one in the median line and one behind the left canine with great downward displacement of the median fragment. A complete bony union was attained by using the Kingsley machine. The author grants that the Martin and other methods are capable of excellent results in many instances, but he does claim that the means he employed can be made use of in far the greater part of all fractures with a promise of success.

Double Synchronous Amputation.—THOS. W. HUNTINGTON‡ reports three cases in which double amputation was performed, the patients were run over by a locomotive and both lower extremities crushed; infusion of salt solution was resorted to in each case, both before and during the operation, from two to four quarts being used in each case. All three patients recovered.

Lavage for Headache.—H. E. HERTER was the first to treat migrainous attacks by lavage. He claimed a high degree of success in aborting the attacks by this means. In almost all marked migrainous attacks there is a profound disturbance of the gastro-intestinal tube and marked vomiting. Old theories as to the origin of migraine regard it as a toxemia in which there is an accumulation of substances in the blood which should be excreted, and this is followed by the vomiting and headache. Much experimental work of late shows that the stomach is, in a sense, an eliminating organ. For example, morphine given hyperdermically is found in the stomach, from which it may be washed. After the stomach is cleaned, a second and even a third lavage will still show an accumulation of the salt in the stomach. An extension of this theory would show that lavage in migraine actually gets rid of certain toxic products, and this accounts for the relief afforded.

*Centralblatt für Chirurgie, June 24, 1899.
†Revue de Chirurgie, May 10, 1899.
‡Jour. Amer. Med. Assn., July 8, 1899.

Practical Therapeutics.

Rapid Treatment of Varicose Ulcers of the Leg.—W. D. H. BROWN* calls attention to the good and rapid effect from the use of antinosine and nosophen in the treatment of chronic ulcers. Antinosine, in fifty per cent. solution, produces the best results, followed by the application of powdered nosophen and nosophen gauze; if the surface of the ulcer becomes too dry and hard, nosophen in an ointment form is of service. The stocking was found of service in all cases, but strapping with plaster is to be avoided. No toxic effect whatever was found and there was also entire absence of irritation from the use of these remedies.

Electrical Heating Applied to Steam Sterilization and the Production of Dry Hot Air for Therapeutic Purposes.—C. L. LEONARD† describes a steam sterilizer, heated by electricity, and an electrical hot-air apparatus, which can be used wherever electricity for lighting or power are employed; the amount of electricity required to produce sterilization is small: it is all utilized, no more being required than that used in the actual process. Both forms of apparatus can be used on the ordinary electric lighting circuit, such as is employed in private residences; there is no danger to patient or operator, as the only function of electricity is the production of heat by its conversion in a resistance-plate; the cost is by far less than by the employment of other methods of heating.

Carcinoma of the Breast and Uterus.—DR. RIES believes that in carcinoma of the uterus the operation should be as radical as that in carcinoma of the breast, and that as the percentage of recurrence is greatly lessened by removing not only the breast, but the fascia of the pectoral muscles, the pectoral muscles themselves, the glands in the axilla and in the space of Morenheim; so also is the percentage of recurrence lessened in as radical a removal of the uterus. Besides excising the uterus, he removes the broad ligaments, tubes and ovaries. After having dissected out the uterus on both sides, he dissects out the iliac vessels and their subdivisions and removes the glands that lie along these vessels It makes a ragged-looking peritoneum, but after it is all brought together with cat-gut it looks fairly well. The patients have less shock than one would suppose. He exhibited a patient whom he had operated on for carcimona of the uterus, confirmed by microscopical examination two years and ten months previously, and there was no sign of recurrence. In the treatment of uterine cancer surgi-

*Tri-State Med. Jour., June, 1899.
*Phila. Med. Jour., July 8, 1899.

cal methods alone are of use. The procedure of Dr. Ries is one to be encouraged. After the entire body of the uterus is involved, the more complete the removal of the uterine appendages and lymphatics of the pelvis, the greater the chance of cure. We would emphasize the necessity of early diagnosis. A suspicion of cancer of the cervix should be sufficient to lead to an amputation. If a wait is made to have the suspicion confirmed by ulceration and hemorrhage, it is then too late for less radical methods. T. M. MADDEN* reported 31 cases of early amputation of the cervix in carcinoma. In 1 the disease returned in 4 months; in five, within a year; in 2, within 2 years; in 1, within 3 years; in 1, within 4 years; in 10 there was no return within 4 years; in 5, within two years; in 6, within a year. There was no mortality from the operation. The results of Madden compare favorably with more heroic procedures. There is nothing in an amputation of the cervix that would preclude the more radical operation later. Granting that some of Madden's cases were not malignant, there still remains a most favorable balance in favor of amputation, providing only that it is made very early in the disease.

The New Silver Salts in Gonorrhea.—The ideal remedy for gonorrhea is one that will insinuate itself into all folds of the mucous membrane and penetrate the superficial epithelial cells, thus destroying the gonococcus in its habitat. Such a remedy has not yet been found. Many there are which are destructive, but unfortunately they do more damage to the mucous membrane than the infection which they are designed to cure. The nitrate of silver has long been a favorite, but its cauterizing effects are so marked in strong solution as to preclude its effective use. Other salts of silver have recently come into use, and much is claimed for them in the treatment of gonorrhea. The first of these—argonin—contained 4.2 per cent. of silver; lately, this salt has been improved, so that it now contains 10 per cent. of silver. Argentamin contains 10 per cent. of silver, largin 11.1 per cent., protargol 8 per cent. The latter salt has been extensively used in the treatment of gonorrhea, and bids fair to remain a favorite, though it may be superseded by the stronger preparation, argonin, which contains 2 per cent. more of silver, and has a further advantage in being freely soluble in cold water. The solution will keep for months.

There is little doubt that the newer silver salts are by far the most efficient and least poisonous of antiseptics. Their thorough use in gonorrhea lessens the duration of the disease and prevents complications. According to Neisser the injections should be made three times a day. In two of these injections, which are always made after urination, the fluid should be retained five minutes, and in the third for thirty minutes. If there is much secretion, and the symptoms are acute, the three injections may be replaced by six of five minutes each. Neisser recommends a $\frac{1}{4}$ per cent. solution of protargol to begin with, increased to a 1 per cent. as the symptoms disappear.

*Dublin Jour. of Med. Sciences, June, 1899.

Tropon; a Maximum Nutrition at a Minimum Cost.—The unheralded advent of a dietetic debutant in the domain of medicine may not be attended with the flourish of trumpets and acclaim that some sensational discovery in serum-therapy secures, yet it cannot be denied that it is to the forced feeding of patients in phthisis that actual progress counts in combating this disease. Any substance or combination of food elements which would furnish concentrated and complete nourishment in mal-nutrition should merit the consideration of every thoughtful physician.

Tropon, containing 90% pure albumin in the ultimate form of its absorption, must be reckoned as an important discovery, and certainly a valuable contribution to food chemistry and food digestibility. When nutrition is deficient on account of exhaustion from disease or overwork, tropon supplies ample nutritive material, and it can be readily adjusted to a mixed dietary. It does not impair normal digestive vigor nor induce the aversion and monotony arising from the exclusive use of other food products. Tropon is capable of insuring prolonged and sustained nutrition, *per se*. It is a perfect and complete substitute for albumin in ordinary food. The clinical experiments of Prof. Finkler and his pupils have shown that it is best used as an adjuvant with other food. Tropon is palatable, well borne, and does not cause intestinal disturbances. On account of these many striking advantages, also its small bulk and low price, Tropon should achieve the same measure of success here as in Europe, and thereby justify the reputation of its discoverer, Prof. Finkler of the University of Bonn, Germany.

Doctors Strauss and Plaut of Berlin, Klein and Schmelinski of Hamburg, and Dr. Rumpf of Gorbersdorf, give unstinted praise to tropon as an unrivalled food value in the various processes of digestion, absorption and assimilation.

All of the above authorities report a rapid increase in weight from its use. Dr. S. A. Knopf of New York, in his recent work on Pulmonary Tuberculosis,* says on page 241: "Of the many food substances which have been recommended recently as especially valuable in the dietetic treatment of tuberculosis, I have used most extensively and with most satisfactory results the new product tropon."

*Pulmonary Tuberculosis; its Modern Prophylaxis and the Treatment in Special Institutions and at Home. [P. Blakiston's Son & Co., Philadelphia, 1899.